Letter to the Editor: Late Local Recurrence of Wilms' Tumor

Gallego-Melcón et al. [4] reported a patient with Wilms' tumor (WT) who presented with late mediastinal and lung metastases (Med. Ped. Oncol. 23:158, 1994). Late recurrence (>5 years) is extremely rare and the pathogenesis is poorly explained [1–3].

Here we present a case of WT recurring locally 15 years after initial diagnosis. In August 1978, a 2-year-old boy was admitted to our Institution for evaluation of a large, left abdominal mass. The right kidney visualized on intravenous pyelogram was normal in shape and size. A left total nephrectomy through an abdominal approach yielded a 12 cm WT of the left kidney, stage II. Histological examination showed a typical triphasic nephroblastoma, well-differentiated (favorable histology) with areas of rhabdomyoblastic differentiation. No anaplastic features were found. Renal veins could not be identified but the renal capsule was infiltrated. Postoperatively, the patient received chemotherapy with vincristine and dactinomycin completed in September 1979. He did not receive radiotherapy.

In May 1993, 15 years after diagnosis, a large left-sided abdominal mass was found during evaluation for recurrent abdominal pain. Ultrasound and computerized tomography scans of the abdomen confirmed the existence of a 14 cm retroperitoneal solid tumor at the same site as the initial WT. At laparotomy a large inoperable tumor was found. Histology showed a biphasic nephroblastoma consisting of nephrogenic blastema and sarcomatous stroma, with necrotic foci, numerous mitoses but no anaplastic features. It thus was considered a biphasic undifferentiated nephroblastoma with favorable histology. The recurrent tumor was notably less differentiated than the primary. Chemotherapy was started with courses of cisplatin and etoposide and the tumor regressed by 75% of its original size. Complete excision was achieved at this stage and it was found to have large areas of necrosis and fibrosis. No viable tumor cells were left in the excised tumor. He continued chemotherapy consisting of vincristine, dactinomycin and epiadriamycin. Radiotherapy, 2,400 cGy, was included in the treatment schema. The pathogenesis of this local recurrence could be due to the silent persistence of a nephrongenic rest or residual tumor cells in a hematoma in the retroperitoneum from the initial surgery. The mechanism of activation of these tumor cells remains to be clarified.

As this child had not received radiation therapy, irradiation is not involved in the pathogenesis of this late tumor recurrence. The use of cisplatin and etoposide as a second-line therapy proved to be very effective.

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